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EXAMINER
LAM, THANH

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/446,831

Applicant(s)

Wobben

Examiner

Thanh Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on amndt. filed on 10/18/2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 17-31 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 17-31 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) Notice of References Cited (PTO-892)
16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) Interview Summary (PTO-413) Paper No(s). _____
19) Notice of Informal Patent Application (PTO-152)
20) Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-21 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Long et al.

Long et al. disclose a synchronous generator comprising: a stator (46) having a plurality of windings (48); and a rotor (10) having a plurality of poles, the rotor being movable relative to the stator, the poles being asymmetrically (14,16, 18a-c, 20a-b) positioned on the rotor.

Regarding claim 18, Long et al. disclose each pole has a cross-sectional area, and the cross-sectional area of at least one pole (38) is greater than the cross-sectional area of at least one other pole (18).

Regarding claim 19, Long et al. disclose the plurality of poles define a plurality of gaps (18a-c), and at least one of the gaps (38) is wider than at least one of the other gaps.

Regarding claim 20, Long et al. disclose at least one of the gap has a first width, at least one of the gaps has a second width, and at least one of the gaps has a third width.

Regarding claim 21, Long et al. disclose the gaps are air gaps.

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Regarding claim 31, Long et al. disclose a wind power plant (preamble no patentability weight) comprising a rotor (10); a drive shaft (12) connected to the rotor; and a synchronous generator connected to the drive shaft, the synchronous generator including a stator(46) having a plurality of windings; and a rotor having a plurality of poles, the rotor being movable relative to the stator, the poles being asymmetrically (14,16,18a-c,20a-c) positioned on the rotor.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long et al. in view of Susumu (JP-57097337).

Long et al. disclose all the aspect of the claimed invention except the leading edge extending essentially obliquely with respect to the motion of the rotor.

Susumu disclose the leading edge extending essentially obliquely with respect to the motion of the rotor for obtain an output of waveform with a smooth change.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the poles of Long et al. to accommodate the poles as taught by Susumu in order to provide an output of waveform with a smooth change.

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Regarding claim 23, Susumu discloses the leading edge has first and second sections, the first and second sections of the leading edge being oriented at an angle with respect to one another thereby forming a point.

Regarding claim 24, Susumu discloses the first and second sections of the leading edge are positioned at an angle between about 100° and about 140° relative to the direction of motion of the rotor.

Regarding claim 25, Susumu discloses the first and second sections of the leading edge are positioned at an angle of about 120° relative to the direction of motion of the rotor.

Regarding claim 26, Susumu discloses each of the pole pieces has at least one trailing edge, the trailing edge extending essentially obliquely with respect to the motion of the rotor.

Regarding claim 27, Susumu discloses the trailing edge has first and second sections, the first section of the trailing edge being substantially parallel to the first section of the leading edge, and the second section of the trailing edge being substantially parallel to the second section of the leading edge.

Regarding claim 28, Susumu discloses the leading edge is rounded and the trailing edge is rounded.

Regarding claim 29, Susumu discloses the pole piece has a cross-section, the cross-section having a trapezoid shape.

Regarding claim 30, Susumu discloses the pole piece has a center portion, a first side portion extending from one side of the center portion, and a second side portion extending from

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an opposite side of the center portion, the cross-section of the first side portion diminishing as it extends from the center portion, and the cross-section of the second side portion ,diminishing as it extends from the center portion.

Response to Arguments

5. Applicant's arguments with respect to new claims 17-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (703) 308-7626. The fax phone number for this Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0656.

KARL TAMAI
PRIMARY EXAMINER



Thanh Lam

Patent Examiner

May 3, 2002